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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,086

08/29/2006

Guenter Ries

2005P00312WOUS

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46726

7590

08/31/2009

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EXAMINER

BARRERA, RAMON M

ART UNIT

PAPER NUMBER

2832

MAIL DATE

DELIVERY MODE

08/31/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/591,086	<b>Applicant(s)</b> RIES, GUENTER	
	<b>Examiner</b> RAMON M. BARRERA	<b>Art Unit</b> 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-31 is/are allowed.
- 6) ☒ Claim(s) 14-16 and 18-21 is/are rejected.
- 7) ☒ Claim(s) 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _.   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 14, 18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Togashi Hitoo(JP2000-253640), et al., cited on applicant's IDS.

Hitoo in figs. 2 and 7 disclosed a linear drive device comprising an excitation winding (3,14) producing a variable magnetic field and including an associated magnetic-flux-carrying main yoke body (2,12) having pole surfaces having multiple and a center limb; a winding-free counter yoke body; an axial gap formed between the main and counter-yoke bodies; an armature body (4,22) including a magnet carrier having at least two permanent magnet parts (24,26) and an axial oscillation movement being transferable to the at least two permanent magnet parts by the variable magnetic field of the excitation winding.

3. Claims 14, and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hitoo Togashi(JP2000-224829), et al., cited on applicant's IDS.

Hitoo in figs. 4-7 disclosed a linear drive device comprising an excitation winding 14 producing a variable magnetic field and including an associated magnetic-flux-carrying main yoke body 12 having pole surfaces having multiple and a center limb; a winding-free counter yoke body; an axial gap formed between the

main and counter-yoke bodies; an armature body 20 including a magnet carrier having at least two permanent magnet parts (20a,20b) and an axial oscillation movement being transferable to the at least two permanent magnet parts by the variable magnetic field of the excitation winding. Figs. 4-6 disclose embodiments where the armature stroke is confined by counter yoke legs 16(a,b) to a distance substantially the same as the pole surface width dimension of at least one pole surface.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Togashi Hitoo, cited above, in view of Huth(EP0915553), cited on applicant's IDS.

Hitoo disclosed the claimed invention except for pole shoes on the respective limbs. Huth disclosed a linear motor with pole shoes, an equivalent structure known in the art. Therefore, because these two pole structures were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to employ pole shoes on Hitoo's main yoke limbs as taught by Huth.

6. Claims 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Togashi Hitoo, cited above, in view of McGill, et al.(US2003/017384), newly cited.

Hitoo disclosed the claimed invention except for wherein the armature body is rigidly connected to a pump plunger of a compressor. McGill, et al., disclosed a similar actuator having an armature body connected to a pump plunger 11 of a compressor. Therefore, because these two actuators were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to connect a pump plunger of a compressor to Hitoo's armature.

***Allowable Subject Matter***

7. Claims 22-31 are allowed.
8. Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

9. Applicant's arguments filed 5/7/09 have been fully considered but they are not persuasive. Applicant contends the JP2000-253640 reference lacks features recited in parent claim 14. In response it is noted JP2000-253640 in fig. 7 discloses a pole surface width dimension of each of the multiple limbs 2a of the main yoke body being substantially the same, each of the multiple limbs being spaced apart from one another axially by a pole surface spacing dimension, the magnet axial extension dimension of each magnet part (4a,4b) being approximately equal to the sum of the pole surface width dimension and the pole surface spacing dimension as recited by independent claim. It is noted applicant's specification on page 2 discloses a range of  $\pm 10\%$  for this

feature. Furthermore, the claimed “substantially” and “approximately” are relative terms open to broad interpretations.

Applicant contends the JP2000-224829 reference lacks features recited in parent claim 14. In response it is noted JP2000-224829 in figs. 4-7 discloses a pole surface width dimension of each of the multiple limbs of the main yoke body 3 being substantially the same, each of the multiple limbs being spaced apart from one another axially by a pole surface spacing dimension, the magnet axial extension dimension of each magnet part 8 being approximately equal to the sum of the pole surface width dimension and the pole surface spacing dimension as recited by independent claim. Furthermore, “substantially” and “approximately” are relative terms open to broad interpretations.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAMON M. BARRERA whose telephone number is (571)272-1987. The examiner can normally be reached on Monday through Friday from 11 to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ramon M Barrera/  
Primary Examiner, Art Unit 2832

rmb